Patent claims:

1. A method for controlling the cut register of a web-fed rotary press, in which a web (1), after leaving the last printing unit (2), is guided to a cross-cutting device (6) via pulling units (Z1 to Z4) whose lead can be adjusted, one of the pulling units (Z3) being changed with regard to its circumferential speed in order to adjust the cut register.

2. The method as claimed in claim 1, characterized in that a motor (7.3) of the pulling unit (Z3) is controlled with regard to its rotational speed by means of a controller (8), and the actual value of the cut register is recorded by a cut-register sensor (9), fed to the controller (8) and compared with the cut-register setpoint value.

3. The method, in particular as claimed in claim 2, characterized in that, by means of a further cut-register sensor (10) on a web section which is arranged at one of the further pulling units (Z2) arranged ahead of the pulling unit (Z3) in the web running direction, an actual value of the cut register is determined and derived as a differentiating proportion, and the controller (8) is subjected to feedforward control using the latter.

4. The method, in particular as claimed in claim 2, characterized in that the actual state of the cut register is determined by means of a

mathematical model and a differentiating proportion is derived, and the controller (8) is subjected to feedforward control using the latter.

5. The method, in particular as claimed in one of claims 2 to 4, characterized in that setpoint valve supply processes of the leads are performed in pulling units (Z4) which follow the pulling unit (Z3) in the web running direction, using the actuating intervention of the controller (8).

6. The method, in particular as claimed in one of claims 2 to 5, characterized in that the forces of the web (1) which have a retroactive effect on the torque of the motor (7.3) are compensated for to a very large extent by a suitable algorithm in the controller (8).

7. An apparatus for controlling the cut register of a web-fed rotary press, a web (1), after leaving the last printing unit (2), being guided to a cross-cutting device (6) via pulling units (Z1 to Z4) whose lead can be adjusted, characterized in that the motor (7.3) of a pulling unit (Z3) is connected to the output of a controller (8) which controls the speed and to whose input a cut-register sensor (9) is connected.

8. The apparatus for controlling the cut register, in particular as claimed in claim 7, characterized in that, in order to subject the controller (8) to feedforward control, a further cut-register sensor (10) is connected to said

controller (8), which further cut-register sensor (10) is arranged on a web section which is situated at a further pulling unit (Z2) arranged ahead of the pulling unit (Z3) in the web running direction.

9. The apparatus for controlling the cut register, in particular as claimed in claim 7, characterized in that, for feedforward control, a computing and storage unit (11) is connected to the controller (8), it being possible to calculate the actual state of the cut register as claimed in a mathematical model by means of said computing and storage unit (11).

10. The apparatus for controlling the cut register, in particular as claimed in one of claims 7 to 9, characterized in that, for the setpoint valve supply controlling of the leads, the controller (8) is connected to the motors (7.4) of pulling units (Z4) which follow the pulling unit (Z3) in the web running direction.

11. The apparatus for controlling the cut register, in particular as claimed in one of claims 7 to 10, characterized in that the controller (8) contains an algorithm, using which the forces of the web (1) which have a retroactive effect on the torque of the motor (7.3) are compensated for to a very large extent.